

In the Claims

1-19. (Canceled)

20. (New) A method of establishing a path in a communications network, the path being for use in a communications session between two endpoints, the method comprising the following steps:

advertising information identifying a plurality of path elements, or tunnels, the path elements, or tunnels, being between nodes of said communications network;

a first node associated with the first endpoint sending at least one communication session setup request message, towards a second node associated with the second endpoint or with an intermediate point in the network,

the second node receiving at least two communication session setup request messages, the received messages having traversed respective different paths in the network;

selecting one of said different paths;

the second node sending a communication setup response message along said selected path towards said first node;

establishing a path for use in said communications session by storing items of said advertised information, the items identifying path elements, or tunnels, associated with a path traversed by said communication setup response message;

characterised by:

a third node receiving the at least one communication session setup message, or a message derived therefrom, and replicating the received message to form at least first and second forked communication session setup messages; and

the third node sending the second and third communication setup messages towards said second node along different paths, the at least two communication session setup request messages received by the second node

being, or being derived from, the second and third communication setup messages.

21. (New) A method according to claim 20, wherein the at least one communication session setup request message is sent towards the second node along a partial explicit path between the first and second nodes.

22. (New) A method according to claim 21, wherein the third node sends the second and third communication setup messages in response to the partial explicit path not defining at least part of a path from the third node towards the second node.

23. (New) A method according to claim 22, wherein the third node determines that the a node on the partial explicit path is not reachable through a fourth node and in response, does not send a fourth communication setup message to the fourth node.

24. (New) A method according to claim 20, wherein the communications network is a label-switched communications network and the information identifying a plurality of path elements, or tunnels, comprises labels.

25. (New) A method according to claim 20, wherein said information items are stored at nodes corresponding to endpoints of the path elements, or tunnels, associated with a path traversed by said communication setup response message thereby enabling data for the requested communication session to follow the selected path.

26. (New) A method according to claim 20, wherein records of said respective different paths traversed by said at least two communication session setup request messages are created as said messages, or messages from which they derive, traverse the respective different paths.

27. (New) A method according to claim 20, wherein the first, second and third nodes are management nodes for transmitting control data and are each associated with respective abstract nodes for transmitting customer data.
28. (New) A method according to claim 27, wherein the path elements, or tunnels, are between abstract nodes.
29. (New) A method according to claim 27, wherein the abstract nodes comprise one or more physical nodes.
30. (New) A method according to claim 20, wherein resources for the communication session are reserved in response to said path establishment.
31. (New) A method according to claim 20, wherein the communication setup request and response messages are based on the session initiation protocol.
32. (New) A method according to claim 20, wherein said respective different paths are ranked according to their respective quality of service capabilities and the step of selecting one of said different paths is performed in dependence on said rankings.
33. (New) A method according to claim 32, wherein said ranking is established on the basis of a combination of a first ranking determined by the first node and a second ranking determined by the second node.
34. (New) A communications network comprising two endpoints and a first, second and third node, the first node being associated with the first endpoint and the second node being associated with the second endpoint or with an intermediate point in the network, the network being arranged to establish a path for use in a communications session between the two endpoints by:

advertising information identifying a plurality of path elements, or tunnels, the path elements, or tunnels, being between nodes of the network;

the first node sending at least one communication session setup request message, towards the second node;

the second node receiving at least two communication session setup request messages, the received messages having traversed respective different paths in the network;

selecting one of said different paths;

the second node sending a communication setup response message along said selected path towards said first node;

establishing a path for use in said communications session by storing items of said advertised information, the items identifying path elements, or tunnels, associated with a path traversed by said communication setup response message;

characterised by:

the third node receiving the at least one communication session setup message, or a message derived therefrom, and replicating the received message to form at least first and second forked communication session setup messages; and

the third node sending the second and third communication setup messages towards said second node along different paths, the at least two communication session setup request messages received by the second node being, or being derived from, the second and third communication setup messages.

35. (New) A communications network according to claim 34, wherein the at least one communication session setup request message is sent towards the second node along a partial explicit path between the first and second nodes.

36. (New) A communications network according to claim 35, wherein the third node sends the second and third communication setup messages in response to

the partial explicit path not defining at least part of a path from the third node towards the second node.

37. (New) A communications network according to claim 36, wherein the third node determines that the a node on the partial explicit path is not reachable through a fourth node and in response, does not send a fourth communication setup message to the fourth node.

38. (New) A communications network according to claim 34, the communications network being a label-switched communications network and wherein the information identifying a plurality of path elements, or tunnels, comprises labels.

39. (New) A communications network according to claim 34, wherein said information items are stored at nodes corresponding to endpoints of the path elements, or tunnels, associated with a path traversed by said communication setup response message thereby enabling data for the requested communication session to follow the selected path.

40. (New) A communications network according to claim 34, wherein records of said respective different paths traversed by said at least two communication session setup request messages are created as said messages, or messages from which they derive, traverse the respective different paths.

41. (New) A communications network according to claim 34, wherein the first, second and third nodes are management nodes for transmitting control data and are each associated with respective abstract nodes for transmitting customer data.

42. (New) A communications network according to claim 41, wherein the path elements, or tunnels, are between abstract nodes.

43. (New) A communications network according to claim 41, wherein the abstract nodes comprise one or more physical nodes.

44. (New) A communications network according to claim 34, wherein resources for the communication session are reserved in response to said path establishment.

45. (New) A communications network according to claim 34, wherein the communication setup request and response messages are based on the session initiation protocol.

46. (New) A communications network according to claim 34, wherein said respective different paths are ranked according to their respective quality of service capabilities and the step of selecting one of said different paths is performed in dependence on said rankings.

47. (New) A communications network according to claim 46, wherein said ranking is established on the basis of a combination of a first ranking determined by the first node and a second ranking determined by the second node.

48. (New) A computer program stored on a computer readable medium, the computer program being for controlling a communications network comprising two endpoints and a first, second and third node, the first node being associated with the first endpoint and the second node being associated with the second endpoint or with an intermediate point in the network, the computer program controlling the network to establish a path for use in a communications session between the two endpoints by:

advertising information identifying a plurality of path elements, or tunnels, the path elements, or tunnels, being between nodes of the network;

causing the first node sending at least one communication session setup request message, towards the second node;

causing the second node receiving at least two communication session setup request messages, the received messages having traversed respective different paths in the network;

selecting one of said different paths;

causing the second node sending a communication setup response message along said selected path towards said first node;

establishing a path for use in said communications session by storing items of said advertised information, the items identifying path elements, or tunnels, associated with a path traversed by said communication setup response message;

characterised by:

causing the third node receiving the at least one communication session setup message, or a message derived therefrom, and replicating the received message to form at least first and second forked communication session setup messages; and

causing the third node sending the second and third communication setup messages towards said second node along different paths, the at least two communication session setup request messages received by the second node being, or being derived from, the second and third communication setup messages.